

(i) between the anode and the light emitting layer, at least a hole transporting layer containing a hole transporting material and an acceptor, and an electron injection restraining layer restraining the injection of electrons from the light emitting layer into the hole transporting layer, from the anode side, and/or (ii) between the light emitting layer and the cathode, at least an electron transporting layer containing an electron transporting material and a donor, and a hole injection restraining layer restraining the injection of holes from the light emitting layer into the electron transporting layer, from the cathode side; and

wherein the electron injection restraining layer and the light emitting layer are constituted by materials meeting the following formula

$$|Ea^{(A)}| \geq |Ea^{(EBL)}| \text{ and } |Ea^{(EM)}| \geq |Ea^{(EBL)}|$$

wherein  $Ea^{(A)}$  represents the electron affinity of the acceptor,  $Ea^{(EBL)}$  represents the electron affinity of a material of the electron injection restraining layer, and  $Ea^{(EM)}$  represents the electron affinity of a material of the light emitting layer.

12. (*Unamended*) An organic electroluminescent element comprising:

a substrate supporting, proceeding from the substrate outwardly,

an anode;

a hole transporting layer;

an electron injection restraining layer;

a light emitting layer;

a hole injection restraining layer;

an electron transporting layer including an electron transporting material  
and an inorganic donor; and  
a cathode;  
wherein the hole injection restraining layer restrains injection of holes from  
the light emitting layer into the electron transporting layer.

14. (*Unamended*) An organic electroluminescent element comprising:  
a substrate supporting, proceeding from the substrate outwardly,  
an anode;  
a light emitting layer;  
a hole injection restraining layer;  
an electron transporting layer including an electron transporting material  
and an inorganic donor; and  
a cathode;  
wherein the hole injection restraining layer restrains injection of holes from  
the light emitting layer into the electron transporting layer.

18. (*Unamended*) An organic electroluminescent element comprising at least a  
light emitting layer containing an organic light emitting material placed between an  
anode and a cathode, wherein the element comprises:

(i) between the anode and the light emitting layer, at least a hole transporting layer  
containing a hole transporting material and an acceptor, and an electron injection

restraining layer restraining the injection of electrons from the light emitting layer into the hole transporting layer, from the anode side, and/or (ii) between the light emitting layer and the cathode, at least an electron transporting layer containing an electron transporting material and a donor, and a hole injection restraining layer restraining the injection of holes from the light emitting layer into the electron transporting layer, from the cathode side;

wherein the electron injection restraining layer and the light emitting layer are constituted by materials meeting the following formula

$$|Ea^{(A)}| \geq |Ea^{(EBL)}| \text{ and } |Ea^{(EM)}| \geq |Ea^{(EBL)}|$$

wherein  $Ea^{(A)}$  represents the electron affinity of the acceptor,  $Ea^{(EBL)}$  represents the electron affinity of a material of the electron injection restraining layer, and  $Ea^{(EM)}$  represents the electron affinity of a material of the light emitting layer; and

wherein the hole injection restraining layer and the light emitting layer comprise materials meeting the following formula:

$$|Ip^{(D)}| \leq |Ip^{(HBL)}| \text{ and } |Ip^{(EM)}| \leq |Ip^{(HBL)}|$$

where  $Ip^{(D)}$  represents the ionization potential of a donor,  $Ip^{(HBL)}$  represents the ionization potential of a material of the hole injection restraining layer, and  $Ip^{(EM)}$  represents the ionization potential of a material of the light emitting layer.

19. (*Unamended*) An organic electroluminescent element comprising at least a light emitting layer containing an organic light emitting material placed between an anode and a cathode, wherein the element comprises:

(i) between the anode and the light emitting layer, at least a hole transporting layer containing a hole transporting material and an acceptor, and an electron injection restraining layer restraining the injection of electrons from the light emitting layer into the hole transporting layer, from the anode side, and/or (ii) between the light emitting layer and the cathode, at least an electron transporting layer containing an electron transporting material and a donor, and a hole injection restraining layer restraining the injection of holes from the light emitting layer into the electron transporting layer, from the cathode side;

wherein the hole injection restraining layer and the light emitting layer comprise materials meeting the following formula:

$$|Ip^{(D)}| \leq |Ip^{(HBL)}| \text{ and } |Ip^{(EM)}| \leq |Ip^{(HBL)}|$$

where  $Ip^{(D)}$  represents the ionization potential of a donor,  $Ip^{(HBL)}$  represents the ionization potential of a material of the hole injection restraining layer, and  $Ip^{(EM)}$  represents the ionization potential of a material of the light emitting layer.

### **REMARKS**

This is in response to the Office Action dated July 26, 2002. Claims 1-19 are pending. No claim has been amended herein.

Claim 1 stands rejected under 35 U.S.C. Section 103(a) as being allegedly unpatentable over Utsugi in view of Takashi. This Section 103(a) rejection is respectfully traversed for at least the following reasons.